

In the Claims

1-21 (canceled).

22 (previously presented). A process for the production of purified interleukin-18 binding protein (IL-18BP) comprising loading a fluid selected from urine or cell culture supernatant and containing IL-18BP onto a hydrophobic charge-induction chromatography resin equilibrated to a pH of  $6.1 \pm 0.1$  with a buffer and eluting the IL-18BP from said hydrophobic charge-induction chromatography resin with a buffer having a pH of  $8.4 \pm 0.1$ .

23 (previously presented). The process according to claim 22, wherein the hydrophobic charge-induction chromatography resin is a 4-mercapto-ethyl-pyridine (MEP) resin.

24 (previously presented). The process according to claim 22, further comprising loading an eluate containing IL-18BP onto a chromatography resin selected from immobilized metal ion affinity chromatography resin, ion exchange chromatography resin, hydrophobic interaction chromatography resin and reverse phase chromatography resin.

25 (previously presented). The process according to claim 23, further comprising loading an eluate containing IL-18BP onto a chromatography resin selected from immobilized metal ion affinity chromatography resin, ion exchange chromatography resin, hydrophobic interaction chromatography resin and reverse phase chromatography resin.

26-31 (canceled).

32 (previously presented). The process according to claim 22, wherein said process comprises:

- (a) loading an IL-18BP containing fluid selected from urine or cell culture supernatant onto a metal ion affinity chromatography resin and eluting the IL-18BP from said resin;
- (b) loading the IL-18BP containing eluate of the metal ion affinity chromatography step onto a hydrophobic charge-induction chromatography resin and eluting the IL-18BP from said resin;
- (c) loading the IL-18BP containing eluate of the hydrophobic charge-induction chromatography step onto a cation exchange chromatography resin and eluting the IL-18BP from said resin;
- (d) loading the IL-18BP containing eluate of the cation exchange chromatography step onto a hydrophobic interaction chromatography resin and eluting the IL-18BP from said resin; and
- (e) loading the IL-18BP containing eluate of the hydrophobic interaction chromatography step onto a reverse phase chromatography resin and eluting the IL-18BP from said resin and recovering the eluted IL-18BP.

33 (previously presented). The process according to claim 22, further comprising one or more ultrafiltration steps.

34 (previously presented). The process according to claim 32, further comprising one or more ultrafiltration steps.

35 -37 (canceled).

38 (previously presented). The process according to claim 22, comprising an initial capture step.

39 (previously presented). The process according to claim 38, wherein the capture step is carried out by strong anion exchange chromatography.

40 (previously presented). The process according to claim 39, wherein the capture step is carried out on a quaternary ammonium (Q) resin.

41 (currently amended). The process according to claim 39, wherein the capture step is carried out on a ~~TMAE~~ trimethylaminoethyl-derivatized (TMAE) resin.

42 (previously presented). The process according to claim 22, wherein said IL-18BP is human, recombinant IL-18BP.

43 (previously presented). The process according to claim 22, wherein the IL-18BP containing fluid is serum-free cell culture supernatant.

44 (previously presented). The process according to claim 22, wherein said process also comprises one or more steps comprising loading an eluate containing IL-18BP onto:

- (a) a metal ion affinity chromatography resin and eluting the IL-18BP from said resin;
- (b) a cation exchange chromatography resin and eluting the IL-18BP from said resin;
- (c) a hydrophobic interaction chromatography resin and eluting the IL-18BP from said resin; or
- (d) a reverse phase chromatography resin and eluting the IL-18BP from said resin.

45 (previously presented). The process according to claim 44, wherein said process comprises a combination of more than one of said steps.

46 (previously presented). The process according to claim 32, wherein said:

- (a) metal ion affinity chromatography resin is a chelating sepharose column containing chelated  $\text{Zn}^{2+}$  ions and said IL-18BP is eluted with a 0.075 M ammonium acetate or in 0.06 M ammonium acetate buffer at a pH of  $9.0 \pm 0.5$ ;

- (b) said hydrophobic charge-induction chromatography resin is a 4-mercaptoethylpyridine derivative (MEP) column and said IL-18BP is eluted with a buffer comprising 20 mM phosphate buffer and 35% propylene glycol at a pH of  $8.4 \pm 0.1$ ;
- (c) said cation exchange chromatography resin is a carboxymethyl-sepharose (CM) column and said IL-18BP is collected in a flow-through eluted with a 1 mM N-morpholinoethanesulfonic acid (MES) buffer at a pH of  $6.0 \pm 0.2$ ;
- (d) said hydrophobic interaction chromatography resin is a phenyl sepharose column and said IL-18BP is eluted with a buffer comprising 50 mM sodium borate and 0.15M ammonium sulfate at a pH of  $9.1 \pm 0.2$ ; and
- (e) said reverse phase chromatography resin is a Source 30 reverse phase chromatography column and said IL-18BP is eluted using a buffer gradient, said buffer gradient comprising a first buffer comprising 0.1% trifluoroacetic acid (TFA) in water and a second buffer comprising 0.1% trifluoroacetic acid (TFA) in acetonitrile at a pH of  $9.1 \pm 0.2$ .

47 (canceled).

48 (previously presented). A process for the production of purified interleukin-18 binding protein (IL-18BP) comprising:

- (a) loading an IL-18BP containing fluid selected from urine or cell culture supernatant onto a metal ion affinity chromatography resin and eluting the IL-18BP from said resin;
- (b) loading the IL-18BP containing eluate of the metal ion affinity chromatography step onto a hydrophobic charge-induction chromatography resin and eluting the IL-18BP from said resin;
- (c) loading the IL-18BP containing eluate of the hydrophobic charge-induction chromatography step onto a cation exchange chromatography resin and eluting the IL-18BP from said resin;

- (d) loading the IL-18BP containing eluate of the cation exchange chromatography step onto a hydrophobic interaction chromatography resin and eluting the IL-18BP from said resin; and
- (e) loading the IL-18BP containing eluate of the hydrophobic interaction chromatography step onto a reverse phase chromatography resin and eluting the IL-18BP from said resin and recovering the eluted IL-18BP.

49 (previously presented). The method according to claim 48, further comprising one or more ultrafiltration steps.